
ENVIRONMENTAL Fact Sheet



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Management of Vaping Liquids, E-Cigarettes, and Nicotine Waste

The use of e-cigarettes and vaping fluids has emerged as a growing business to provide the general public with an alternative to smoking. Discarded nicotine-containing materials can present a significant risk to human health and the environment if improperly disposed of and are regulated as a hazardous waste. Incorrectly disposing of these materials, even unknowingly, can have serious regulatory consequences and these wastes must be handled, maintained, and stored in accordance with both federal and state hazardous waste regulations. This fact sheet has been developed to offer regulatory guidance relating to waste management and disposal requirements for retailers and manufacturers of nicotine-related waste, as well as businesses or schools that may confiscate or need to dispose of e-cigarettes or vaping fluids.

Types of Nicotine-Related Hazardous Waste

Under the Federal Resource Conservation and Recovery Act (RCRA) and the New Hampshire Department of Environmental Services (NHDES) Hazardous Waste Rules (Env-Hw 100-1200), nicotine waste is a highly-regulated acutely hazardous waste with special on-site management and disposal requirements. Disposing of residual nicotine liquid down the drain or disposing of wastes contaminated with nicotine as ordinary trash is prohibited. There is no minimal amount or concentration of nicotine-containing material that is exempt from regulation. The following are hazardous wastes:

- Expired, discontinued, damaged, confiscated or otherwise unsellable nicotine solutions. *This includes prepackaged e-liquid cartridges, pre-packaged e-liquid refill containers, "house blend" e-liquid (e-liquid mixed at the store from nicotine solutions), e-liquid, partially empty containers and nicotine solutions.*
- Empty containers of e-liquid, e-liquid cartridges, house blend containers, and nicotine solution. *This includes waste from customers, employees, students, etc. that is disposed of at your facility. These must be managed as hazardous waste, because of the highly-regulated nicotine residue remaining in the empty containers.*
- Rinse or wash water from cleaning out containers, cartridges, glassware, and tools that were in contact with nicotine solutions or e-liquid and **may NOT be discharged to sewer or septic systems.**
- Cleanup materials (rags, towels, absorbents, etc.), gloves, and other protective equipment contaminated by nicotine solution.
- Spent e-cigarette heating coils, if not managed as scrap metal (*could contain regulated chromium*).
- Spent e-cigarette batteries, if not recycled (*could contain regulated metals or reactive lithium*).

What Hazardous Waste Requirements Apply to Nicotine-Related Hazardous Waste?

In New Hampshire, **ALL** facilities that generate or accumulate hazardous waste are regulated as either a NH Small Quantity Generator (SQG) or NH Full Quantity Generator (FQG). The hazardous waste rules that apply are based on the quantity of waste generated on a monthly basis or accumulated on-site. For acute hazardous nicotine related

waste, SQGs generate less than 2.2 pounds per month and never accumulate more than 2.2 pounds at any time. FQGs generate 2.2 or more pounds per month and/or accumulate 2.2 or more pounds of acutely hazardous waste. All facilities that generate or accumulate hazardous waste must ensure that their wastes are appropriately handled and managed from cradle to grave. Requirements include: obtaining an EPA ID # from NHDES (prior to any waste generation, accumulation or disposal), proper hazardous waste identification, proper waste storage, proper disposal and prevention of releases to the environment.

In addition to these general requirements, FQGs have more stringent requirements for hazardous waste management including, in part: employee hazardous waste training, weekly inspections of hazardous waste storage areas, more stringent container management, and contingency plans. FQGs are also required to have an employee who is certified as a New Hampshire Hazardous Waste Coordinator (HWCC) by attending a full-day training with NHDES staff.

SQGs are required to complete an SQG Self-Certification and Declaration of Compliance Form every three years. This form requires SQGs to review their hazardous waste management practices, conduct a self-inspection of their facility and certify compliance to NHDES.

Where can Nicotine-Related Hazardous Waste Be Disposed?

All facilities that generate or accumulate hazardous waste must ensure that their nicotine-contaminated waste is being shipped to a permitted treatment, storage or disposal facility (TSDF), and that disposal is being tracked through the use of a uniform hazardous waste manifest. When shipping waste off-site, a hazardous waste transporter that is registered in New Hampshire, must be used to transport waste from the facility to the TSDF.

Ideas to Minimize the Amount of Hazardous Waste Generated:

- Sell any product that is still safely usable at a reduced price. *If a product containing nicotine can still be sold, then it is still a product and does not need to be managed as a waste.*
- Return any product to the manufacturer or ship to a recycler. *In some cases, nicotine-containing products that cannot be sold and can be returned for credit or be reformulated may not count as waste.*
- Use loss prevention strategies to prevent spills and breakage. *Implement employee handling training, flooring options and other strategies for minimizing the likelihood of breakage and spills.*
- Discontinue mixing of house blends. *The mixing and use of house blend nicotine solutions can generate more waste than operating as a retailer only. This includes empty containers of nicotine solution, rinse or wash water from cleaning containers or tools, and paper towels and gloves from casual spillage and drips.*
- Manage heating coils and batteries under less stringent regulations. *If you are able to find recycling vendors, you don't need to manage these materials as hazardous waste, but instead as scrap metal (heating coils) or Universal Waste (batteries).*
- Consider a "Carry in Carry Out" policy in your facility. *Do not allow customers or even employees, to dispose of empty e-liquid containers, cartridges or cigarettes on site.*
- Manage e-liquid waste with no nicotine content as non-hazardous waste.

For More Information

Please note this fact sheet is only an introduction and does not fully cover the specifics of the hazardous waste regulations. For more information, please contact the NHDES Hazardous Waste Management Bureau at 1-866-HAZWAST (1-866-429-9278) or (603) 271-2942. A list of registered New Hampshire hazardous waste transporters, copies of other fact sheets, and the Hazardous Waste Rules are available on the NHDES website at www.des.nh.gov.

In addition to the state and federal regulations for nicotine contaminated materials and products, US Food and Drug Administration has additional requirements for [vape shops and manufacturers](#).